

Original Research Article

Attitude of urban schoolchildren towards their dental appearance in Nagpur city

Sanjana Agrawal¹, Anita Kahar¹, Usha Radke¹, Jayshree Joshi¹

¹Department of Prosthodontics, VSPM Dental College, Nagpur, Maharashtra, India.

ABSTRACT

Objectives: In this epoch, the children are more concern about their dental esthetics because exposure to various social media. The influence of social media and peer pressure is found to be additional in urban schools. The aim of the study was to assess the attitude of urban schoolchildren toward their dental appearance.

Materials and Methods: A cross-sectional study was designed and pre-validated 8-item questionnaire was distributed among the urban schoolchildren of age group 10–18 years.

Results: Forty-four (73%) of children agreed that teeth have great effect on persons appearance. While in comparison, 15 (75%) of all the age groups children will visit dentist immediately if they have any dental-related problems.

Conclusion: The urban schoolchildren were concern about their esthetics. The children with the age group of 16–18 years were found to be more concern about the esthetics as compare to other age group children.

Keywords: Urban schoolchildren, Dental appearance, Esthetics, Pilot study

INTRODUCTION

In this epoch, the children are more concern about their dental esthetics because of exposure to various social media. Every children think that his/her smile ought to be pleasing. Due to malpositioning, discoloration, and fracture of anterior teeth of children not solely cause psychological dangerous impact, however, conjointly, it is one in all the supply of development of guilt and low confidence. Peer group conjointly teases the children for his or her dental appearance.

Concerns in respect to esthetics are additional gift in trendy society and have caused an inflated demand for esthetic treatments. Facial esthetics have been related to facial and smile harmony.^[1] Smile harmony relies on many factors such as tooth color, shape, size, and position; lip position permitting tooth visibility and tissue disposition.^[2]

There are various definitions of periods in child development, since each period each continuum with individual differences regarding start an ending. School-aged child come under 9–11 years and adolescent comes

under age 12–19 years.^[3] Increased in concern toward dental appearance can be observed among schoolchildren.^[4]

Adolescence is a transformational phase, and physical changes and alterations in attitude and self-perception take place, but adolescents' capacity to cope and adapt with these changes often declines during this period. Consciousness of body image increases during childhood and adolescence.^[2] As adolescence is a transitional stage of physical and psychological human development.^[5]

During adolescence, there is an increased concern for dental appearance.^[6] Among adolescents social relationship is directly dependent on physical attractiveness, hence, esthetic alteration can have a direct impact on self-esteem and ultimately quality of life. As adolescence is a foundation stone for further avenues in life. During the adolescence, the facial features and appearance play a major role toward self-perceived appearance.^[5,7]

In adolescence, facial attractiveness is an important social norm among adolescent groups, the dental appearance being the first factor related to attractiveness.^[2]

*Corresponding author: Sanjana Agrawal, Department of Prosthodontics, Nagpur, Maharashtra, India.
sanjanaa1710@gmail.com

Received: 25 March 2022 Accepted: 08 June 2022 Published: 30 June 2022 DOI 10.25259/JADPR_4_2022

This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-Share Alike 4.0 License, which allows others to remix, transform, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms. ©2022 Published by Scientific Scholar on behalf of Journal of Advances in Dental Practice and Research

Current advertising and media normally emphasize the effect of a pleasant appearance because of its importance in everyday situations. Because of the exposure of children to many such factors may influence their attitude toward appearance of their face and teeth^[1]

A total of 75% of children cited teasing or bullying about their appearance as causing considerable distress. This may not pertain only to children in urban areas,^[4] but generally seen in urban school. As our study sample is urban schoolchildren and the age group is also school age and adolescent, we decided to conduct such type of study.

Aim

The aim of the study was to assess attitude of urban schoolchildren toward their dental appearance.

Objectives

The objectives of the study were as follows:

- To assess attitude of urban schoolchildren toward their dental appearance
- To assess attitude of urban schoolchildren toward their dental appearance according to different age groups.

MATERIALS AND METHODS

The analysis protocol was approved by the Institutional Ethical Committee of college. The study was administered out on 10–18 years of children studying in different schools of Nagpur city. The permission was taken from their respective principals of the schools.

Study design

A cross-sectional-based study was designed among the urban schoolchildren of different schools of Nagpur city.

Study population

There were total 60 urban schoolchildren from different schools between the age group of 10 and 18 years.

Study procedure

A prevalidated^[1] 8-item questionnaire was used as a study instrument. The inclusion criterion was the willing 10–18 years of urban schoolchildren. They were grouped into three age groups as 10–12 years as Group I, 13–15 years as Group II, and 16–18 years as Group III. The children undergoing orthodontic treatment and unwilling children were the exclusion criteria. The questionnaire was distributed anonymously, after 10 min; the filled questionnaire was collected back at once.

Statistical analysis

The collected questionnaire was analyzed and also the information was recorded in Excel sheet.

RESULTS

The present study was carried out among different schools of Nagpur city. There were total 60 children which were grouped into three age groups as Group I as 10–12 years, Group II as 13–15 years, and Group III as 16–18 years, in which 37 were girls and 23 were boys.

The first question was about their look when they smile showing their teeth, 39 (65%) of children thought that they look good while smiling, while 21 (35%) of children thought that they do not look good while smile showing their teeth. While in comparison, 14 (70%) children of Group I thought that they look good, while 12 (60%) of children of Group II thought that they do not look good, and 16 (80%) of children of Group III thought that they look good while smiling.

While asking about the feeling shy during smiling when the children lose their front teeth, there were about 36 (60%) of the children did not felt shy to smile when they lost their front teeth while 24 (40%) of them felt shy. When we compared between the groups, about 10 (50%) of Group I, 11 (55%) of Group II, and 15 (75%) of Group III children did not felt shy to smile when they lost their front teeth.

The next question was about the size of newly erupted teeth, there were about 25 (42%) of children who thought that the newly erupted teeth are bigger for their face than their milk teeth and 35 (58%) of the children were disagree with this thought.

In comparison, 12 (60%) of children of Group III thought that newly erupted teeth were bigger than milk teeth for their face as compare to 13 (65%) of Group I and 14 (70%) of Group II children felt that newly erupted teeth were bigger than milk teeth for their face.

While asking about minding the discoloration, that is, yellow or black spot on anterior teeth; 38 (63%) of children objected discoloration while 22 (37%) of children did not, when compared among three groups, 11 (55%) of children of both Groups I and II and 16 (80%) of Group III objected discoloration on anterior teeth.

The next question was on essentiality of have regular teeth; 50 (83%) of children agreed to it whereas 10 (17%) of them did not felt it, on comparing 14 (70%) of Group II and 18 (90%) of Group I and III agreed to having regular teeth.

About 44 (73%) of participants said that teeth have a great effect on persons appearance whereas 16 (27%) of children do not agreed to it, while in comparison, 15 (75%), 13 (65%), and 16 (80%) of Groups I, II, and III, respectively, said that teeth have great effect on person appearance.

The 38 (63%) of participants were pleased with their appearance of their teeth and 22 (37%) of them were not. While comparing 12 (60%) of children and 8 (40%) of children of all three age groups were pleased and not pleased with their appearance of their teeth, respectively.

The last question was about the discoloration, fracture, or malposition of front teeth; 44 (73%) and 15 (75%) of children of all the three age groups will visit to a dentist as soon as they noticed it and 16 (27%) of children and 5 (25%) of all the three different age groups will visit dentist when they have pain. The detailed result is given in [Table 1].

Statistical data analysis

The data were analyzed by assigning values of 0–1 to the responses. Score 0 was assigned to negative answer and score 1 to positive answer. The scoring was done to all the three groups and to find out the statistical significance of responses open EPI calculator was used where we got non significance result. When Group I and Group II were compared the *P*-value came to 0.951 which was found to be non-significant, *P*-value of Group II and Group III was 0.559 and *P*-value of Group I and Group III was 0.601 which found to be non-significant. The detailed result is shown in [Tables 2-4].

DISCUSSION

The appearance of face has an important social and psychological effect on human personality and appearance of teeth is related to both cultural factors and individual preferences.^[1]

Self-esteem of a person can be understood as a capability to accept the worthiness of one-self. It is recognized to play a critical role in one's mental health and psychopathology such as symptoms of depression. Adolescence is a crucial stage of life in which prevention from both current impairment and future illness is possible.^[5,7]

Not every children with a malocclusion are self-conscious about it, for there is a considerable variability, from total awareness to deep concern.^[8]

In the study conducted by the Lakshmi,^[1] 190 (63.8%) of boys thought that they look good when they smile whereas 108 (36.2%) of boys do not thought that that they look good when they smile showing their teeth. Ibiyemi and Taiwo found (9), 47 (50%) of the children did not felt free while smiling

Table 1: Detail result of all questions.

S. No.	Questions	I Group Total n=20	In %	II Group Total n=20	In %	III group Total n=20	In %	Total children n=60	In %
1.	Do you think you look good when you smile showing your teeth?								
	Yes	14	70	8	40	16	80	39	65
	No	6	30	12	60	4	20	21	35
2.	Did you feel shy to smile when you lost your front teeth?								
	Yes	10	50	11	55	15	75	36	60
	No	10	50	9	45	5	25	24	40
3.	Do you think your newly erupted teeth are big for your face than your milk teeth?								
	Yes	7	35	6	30	12	60	25	42
	No	13	65	14	70	8	40	35	58
4.	Do you mind yellow or black spot on your front teeth?								
	Yes	11	55	11	55	16	80	38	63
	No	9	45	9	45	4	20	22	37
5.	It is essential to have regular teeth?								
	Yes	18	90	14	70	18	90	50	83
	No	2	10	6	30	2	10	10	17
6.	Does the teeth have great effect on a person appearance?								
	Yes	15	75	13	65	16	80	44	73
	No	5	25	7	35	4	20	16	27
7.	Have you pleased with the appearance of your teeth?								
	Yes	12	60	12	60	12	60	38	63
	No	8	40	8	40	8	40	22	37
8.	When your front teeth discolors, or fractures or irregularly arranged or lost what you would do?								
	Yes	15	75	15	75	15	75	44	73
	No	5	25	5	25	5	25	16	27

Table 2: Group I and Group II.

	Mean	Std. dev.	P-value
Group I	0.65	0.489	0.9512
Group II	0.562	0.496	

Table 3: Group II and Group III.

	Mean	Std. dev.	P-value
Group II	0.562	0.496	0.5596
Group III	0.75	0.433	

Table 4: Group I and Group III.

	Mean	Std. dev.	P-value
Group I	0.65	0.489	0.6013
Group III	0.75	0.433	

while in contrast, the study conducted by Preethi *et al.*^[6] found that 78.3% of the participants were satisfied with their smile, only 44.3% of liked the appearance of the smile very much. In our study, 21 (35%) of children thought that they look good when they smile showing their teeth.

Abuhaloob and Abed^[9] showed that 302 (86.3%) of the children were satisfied with their teeth appearance. In our study also, 38 (63%) of children were pleased with their teeth appearance. The study conducted by Preethi *et al.*^[6] found that 47.8% of children felt their teeth looking good. Whereas a study conducted by de Sousa *et al.*,^[10] at Brazil found that 56 (18.5%) of children were satisfied with their appearance and at the same time, 28 (9.3%) of them were not satisfied with their dental appearance. The study conducted by Boeira *et al.*^[2] who found that 432 (82.6%) of them were satisfied with the dental appearance and only 91 (17.4%) of them were not satisfied with their dental appearance. Al Shahrani^[11] found that 62 (71.3%) of dental children were satisfied with their dental appearance. As in our study also, 38 (63%) of participants were pleased with their appearance of their teeth and 22 (37%) of them were not pleased with their appearance. Lakshmi^[1] conducted study at Karnataka found that 400 (76.6%) of urban children will mind discoloration in their anterior teeth and 122 (23.4%) of urban children do not mind discoloration in their anterior teeth. The study by Ibiyemi and Taiwo^[12] participants of Southwest Nigeria found that 94 (24.5%) of anterior teeth our discolored out of which 65 (69.1%) of them mind the discoloration. The study conducted by Abuhaloob and Abed^[9] who found that 349 (99.7%) of children thought that stained teeth affect esthetic appearance. In our study also, 38 (63%) of children objected discoloration while 22 (37%) of children would not. Lakshmi^[1] conducted study at Karnataka found that 467 (89.5%) of urban children thought that permanent teeth are bigger as

compare to milk teeth and 459 (87.9%) of them thought that it is essential to have regular teeth. In our study also, 35 (58%) of children thought that newly erupted teeth are bigger to their face as compare to milk teeth and 50 (83%) of children of them thought about the essentiality of having regular teeth.

By observing the result of the present study, schoolchildren are seems to be concern about their dental esthetics. The take home message can be made that; such type of data collection can be done regularly in all schools so that the children attitude can be understood. This will help in knowing the dental problems of the children at their developing age so that necessary treatments can be implemented to avoid the complications in their future age. The attitude of children regarding their dental appearance can also be discussed with their parents so that they seek for their treatments and will help in making their children confident and psychologically fit to face the challenges in future years.

Limitations and future directions

As the present study was a pilot study; the sample size was small. The comparison per gender of the children could not be ready to calculate due to unequal quantitative ratio between them. The questionnaire was also self-reported so answers given by the participants may be biased.

The survey will be extended on large sample size and also comparison will be calculated between rural and urban schoolchildren.

CONCLUSION

The urban schoolchildren of the present pilot study concern about their esthetics and the children of the third group with the age group of 16–18 years were found more concern about their esthetics as compare to other two groups. Hence, the conclusion can be made that as the age advances the children's attitude influences more on their dental esthetics.

Acknowledgment

The authors would like to give their sincere thanks to the Dean of VSPM DC&RC and Principals of the participating schoolchildren of Nagpur city for permitting to conduct the survey. The authors would also give their thanks to all the urban schoolchildren of 10–18 years of different schools for their active participation in the survey.

Declaration of patient consent

Patient's consent not required as there are no patients in this study.

Financial support and sponsorship

Nil.

Conflicts of interest

Author Dr. Usha Radke is in the Executive Advisory Board of the journal.

REFERENCES

1. Lakshmi PK. Dental appearance a survey of attitudes in rural and urban children. *J Oral Health Community Dent* 2016;10:40-7.
2. Boeira GF, Salas MM, Araújo DC, Masotti AS, Demarco FF. Factors influencing dental appearance satisfaction in adolescents: A cross-sectional study conducted in Southern Brazil. *Braz J Oral Sci* 2016;15:8.
3. Kail RV. *Children and their Development*. 6th ed. London: Pearson; 2011.
4. Venkatesan R, Naveen M, Teja R, Paulindraraj S, Vallabhaneni SK, Arumugam SB. Psychosocial effects of fractured anterior teeth among rural children. *Int J Clin Pediatr Dent* 2016;9:128.
5. Kaur P, Singh S, Mathur A, Makkar DK, Aggarwal VP, Batra M, *et al.* Impact of dental disorders and its influence on self-esteem levels among adolescents. *J Clin Diagn Res* 2017;11:ZC05-8.
6. Preethi K, Nagalakshmi S, Rajkumar BK, Vinoth S, Dayanithi D, Bandhari DP. Assessment of the correlation of self-perception of dental appearance, smile, and willingness to undergo treatment among school children with dental esthetic index at Thiruchengode. *J Indian Acad Dent Spec Res* 2018;5:14.
7. Dhanani D, Kaul Y. Dental disorders impact and influence on self-esteem levels among teenagers. *ACTA Sci Dent Sci* 2017;1:25.
8. Shaw WC, Lewis HG, Robertson NR. Perception of malocclusion. *Br Dent J* 1975;138:211.
9. Abuhaloob L, Abed Y. Knowledge and public perception of dental fluorosis in children living in Palestine. *J Oral Hyg Health* 2014;2:133.
10. de Sousa ET, Da Silva BF, Maia FB, Forte FD, Sampaio FC. Perception of children and mothers regarding dental aesthetics and orthodontic treatment need: A cross-sectional study. *Prog Orthod* 2016;17:37.
11. Al Shahrani I. Self-perception of personal dental appearance among students of King Khaled University Abha, Saudi Arabia. *Eur J Gen Dent* 2014;3:181.
12. Ibiyemi O, Taiwo JO. Psychosocial aspect of anterior tooth discoloration among adolescents in Igbo-Ora, Southwestern Nigeria. *Ann Ibadan Postgrad Med* 2011;9:94-9.

How to cite this article: Agrawal S, Kahar A, Radke U, Joshi J. Attitude of urban schoolchildren towards their dental appearance in Nagpur city. *J Adv Dental Pract Res* 2022;1:2-6.